THE HANFORD SITE

Department Update

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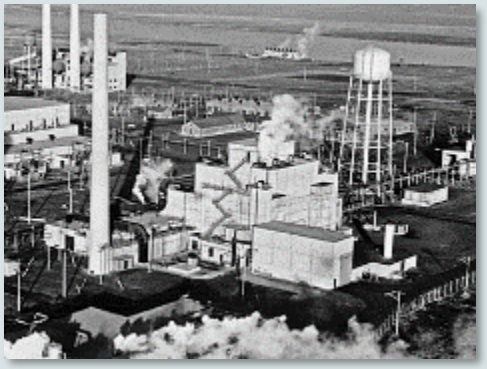
Manager
Office of River Protection
Richland Operations Office

15 December 2021

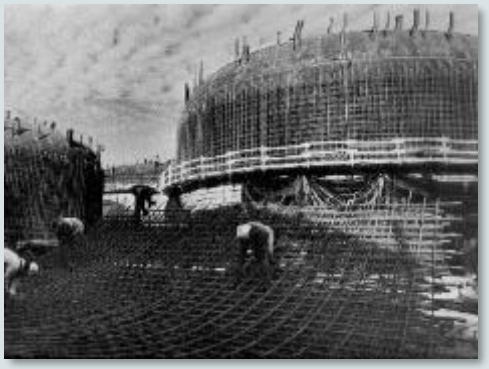
National Defense: Hanford Plutonium Production

World War II and Post-War Era (1944 – 1955)



Approx. 6 tons of plutonium

Cold War Era (1947 – 1991)



Approx. 68 tons of plutonium

Hanford Reactors:

B Reactor 1944 – 1968

D Reactor 1944 – 1967

F Reactor 1945 – 1965

H Reactor 1949 – 1965

DR Reactor 1950 – 1964

C Reactor 1952 – 1969

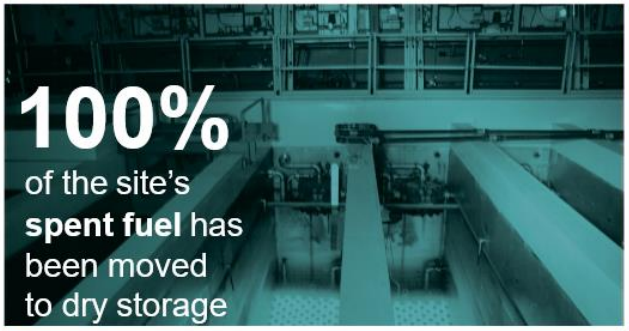
KW Reactor 1955 – 1970

KE Reactor 1955 – 1971

N Reactor 1963 – 1987

Total: Approx. 74 tons of plutonium

Cleanup Progress Since 1989



HANFORD CLEANUP by the NUMBERS #'s

As of September 2021

Hanford Site Today

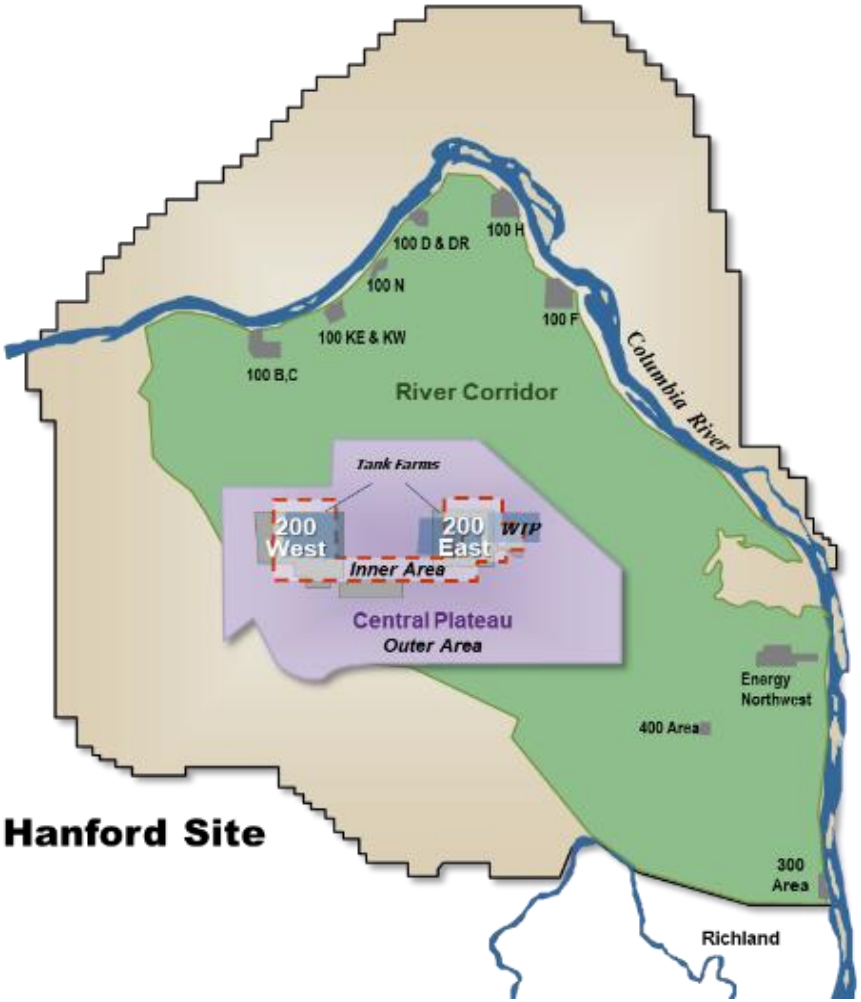
Mission: Safe, efficient, and effective cleanup; protective of the workforce, the public and the environment

Two DOE Offices:

- Richland Operations Office
- Office of River Protection

Key Site Activities:

- Safe and secure operations
- Manage, treat and disposition tank waste
- Stabilize aging structures
- Demolish retired facilities
- Remediate waste sites
- Treat contaminated groundwater



COVID-19 Pandemic Management

Masks required

Vaccines available

Direct-Feed Low-Activity Waste Update

Startup testing of equipment and systems

Effluent Management Facility

New reverse osmosis system / Effluent Treatment Facility

Integrated Disposal Facility

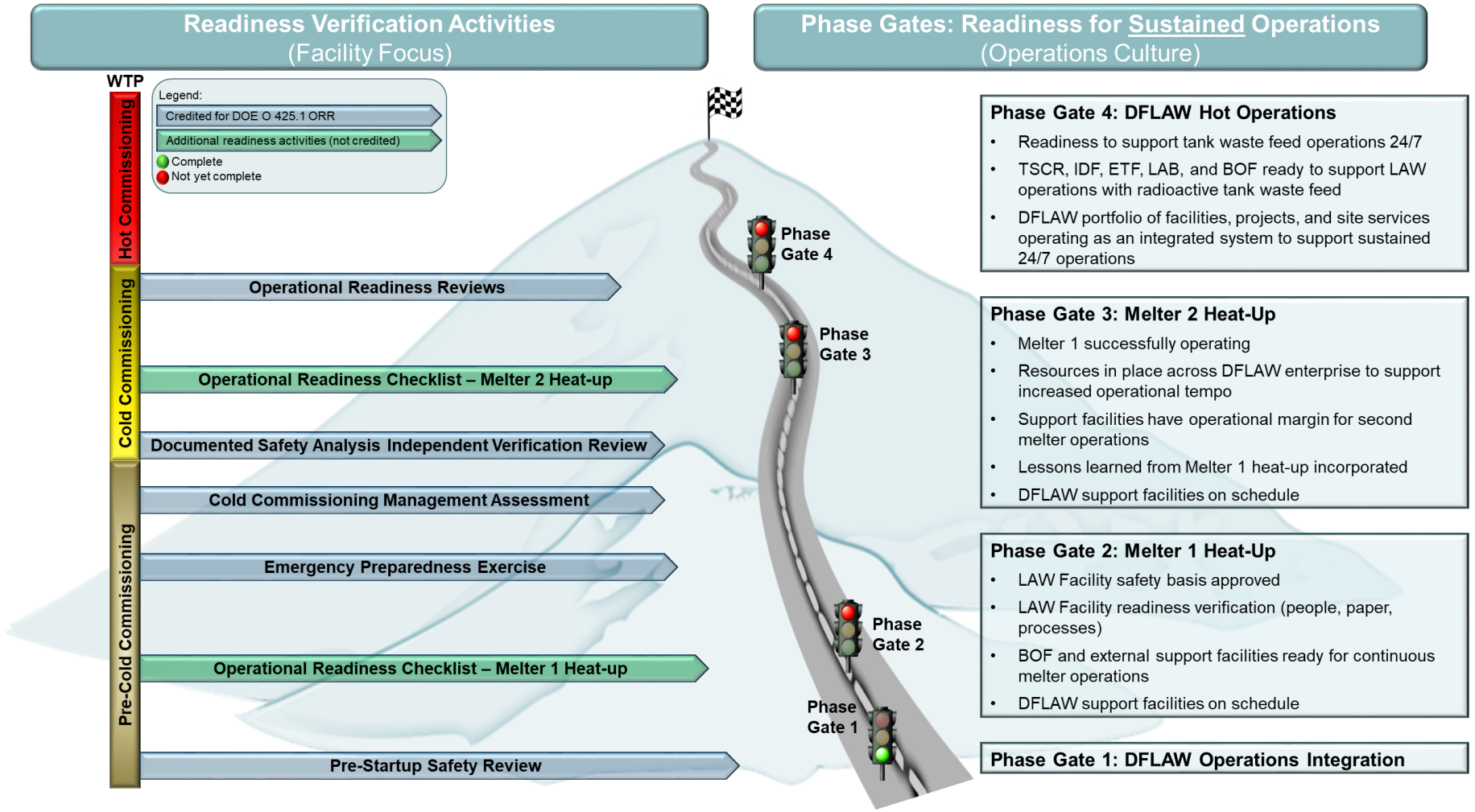
Tank-Side Cesium Removal

Completion of readiness assessments

Process Enclosure

Ion exchange columns

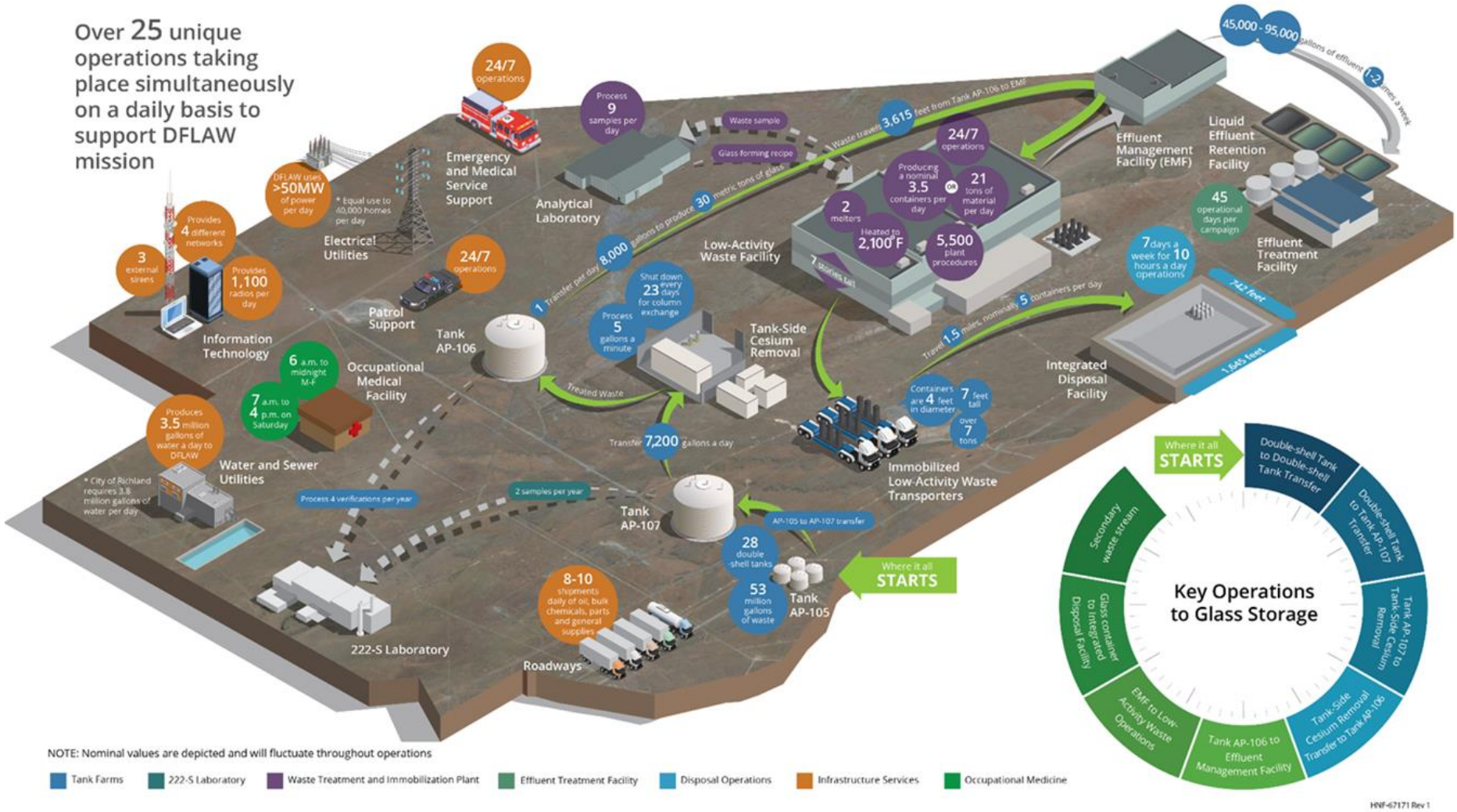
Phase Gate Process



DOE O 425.1, 2019, *Verification of Readiness to Start Up or Restart Nuclear Facilities*, Chg. 2, U.S. Department of Energy, Washington, D.C., October 4.

BOF	=	Balance of Facilities	IDF	=	Integrated Disposal Facility	ORR	=	operational readiness review
DFLAW	=	direct-feed low-activity waste	LAB	=	Analytical Laboratory	TSCR	=	Tank-Side Cesium Removal
ETF	=	Effluent Treatment Facility	LAW	=	low-activity waste	WTP	=	Waste Treatment and Immobilization Plant

DFLAW Operations Day in the Life

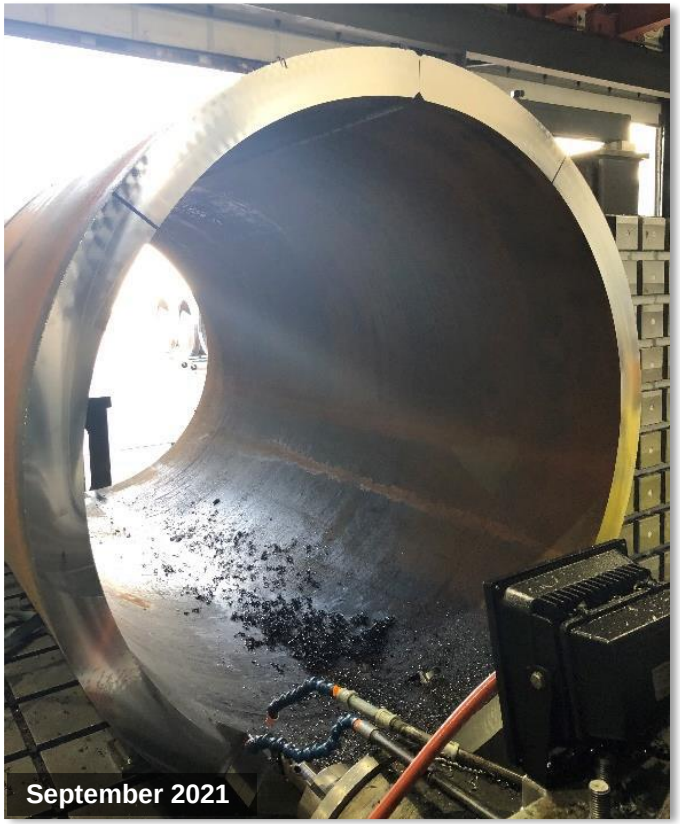


Risk-Reduction Update

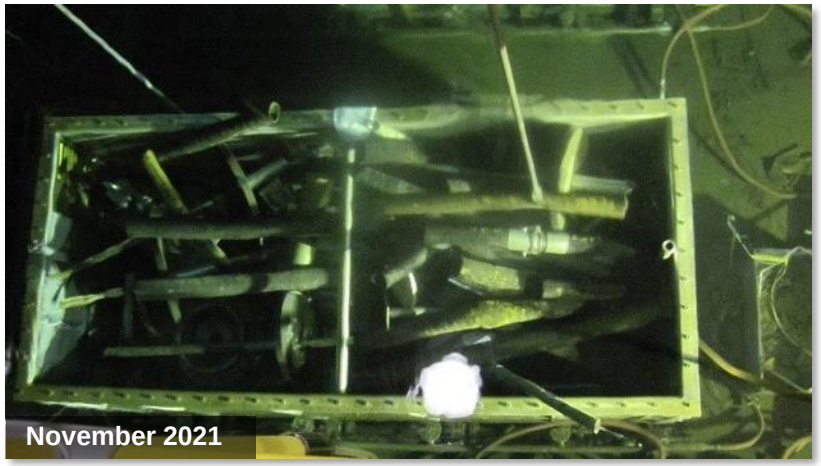
Plutonium Finishing Plant

242-A Evaporator

Risk-Reduction Update (cont.)



WESF Project cask storage system fabrication



K West Basin

K East Reactor

Risk-Reduction Update (cont.)

200 West Pump and Treat Facility

324 Building

Infrastructure Progress

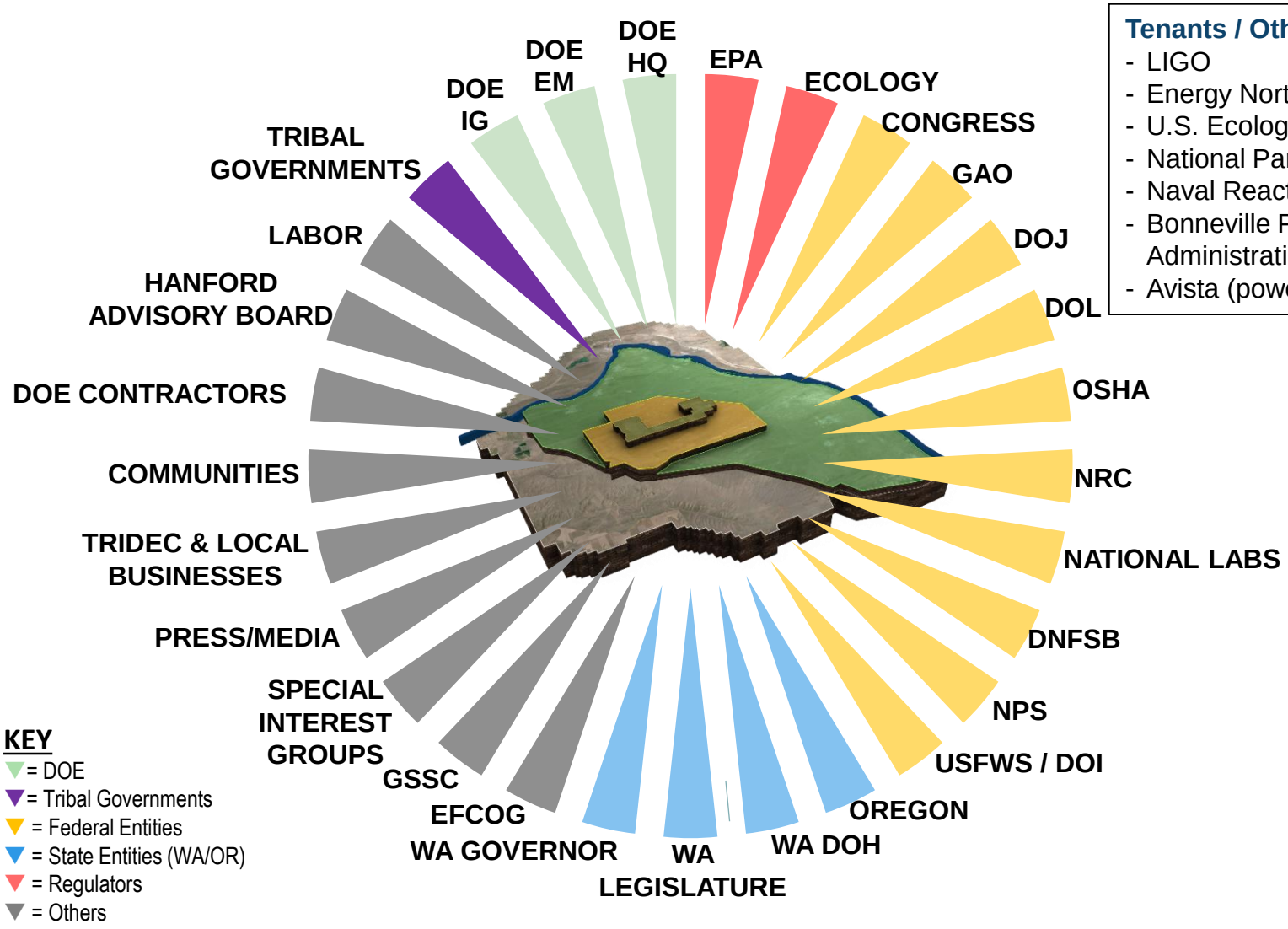
Central Plateau Water Treatment Facility

Multicraft Maintenance Facility in the 200 East Area

Integrated Tank Disposition Contract Overview

- Integrates the Tank Operations Contract and Waste Treatment and Immobilization Plant operations
- Single-award Indefinite Delivery / Indefinite Quantity contract type based on the End-State Contracting model
- $45 billion contract ceiling with a 10-year ordering period
- Request for proposals issued on 21 October 2021
- Proposals due 6 January 2022

Engaged Parties



Tenants / Others:
- LIGO
- Energy Northwest
- U.S. Ecology
- National Park Service
- Naval Reactors
- Bonneville Power Administration
- Avista (power lines)

KEY
- = DOE
- = Tribal Governments
- = Federal Entities
- = State Entities (WA/OR)
- = Regulators
- = Others

Engagement

- Quarterly Tribal affairs meetings
- Tribal Nations summit
- 23 Speakers Bureau briefings
- Oregon Hanford Cleanup Board meetings
- Regular outreach to local mayors, state and federal legislators
- Public comment periods

Big Picture for 2022

Hanford Site

September 2021


ONE
HANFORD